ABSTRACT OF THE DISCLOSURE

A method, device and computer program product for a demodulator 200 for use in a communications channel 110, including a channel estimator section 204 configured to receive a modulated signal $r[k]$ over the communications channel 110 and generate reference symbols based on the modulated signal $r[k]$; a fuzzy adaptive filter (FAF) parameter determination section 206 coupled to the channel estimator section 204 and configured to receive the modulated signal $r[k]$ and the reference symbols and generate signal samples based on the modulated signal $r[k]$ and the reference symbols; and a detector section 208 coupled to the FAF parameter determination section 206 and configured to receive the signal samples and generate a soft decision signal and a hard decision signal based on the signal samples.